

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Original) A composition comprising an isolated mutant of an ARA54 peptide comprising a peptide having at least 80% identity to SEQ ID NO:1, wherein the peptide prevents homodimerization of ARA54.

2. (Original) The composition of claim 1, wherein the mutant ARA further comprises a substitution at position 472 of SEQ ID NO:1.

3. (Original) The composition of claim 2, wherein the mutant ARA comprises a lysine substitution at position 472 of SEQ ID NO:1..

4. (Currently amended) A composition comprising a nucleic acid encoding the mutant ARA of claims 1-3.

5. (Original) The composition of claim 4, wherein the nucleic acid further comprises a promoter sequence operably linked to the sequence encoding the mutant ARA.

6. (Original) A composition comprising a cell comprising the nucleic acid of claim 5.

7. (Original) An animal comprising the cell of claim 6.

8. (Original) A method of inhibiting androgen receptor transactivation comprising administering the composition of claim 4.

Please cancel claim 8.

9. (Currently amended) A method of identifying a molecule that modulates the activity of androgen receptor comprising administering the molecule to a system comprising androgen receptor and the composition of claims 1-3, assaying the activity of androgen receptor, and selecting molecules that modulate the activity of androgen receptor.

10. (Original) The method of claim 9, wherein the system further comprises ARA54, ARA55, SRC-1, ARA24, Rb, ARA70, RB, ARA24, ARA267, gelsolin, or supervillin, or variant comprising androgen receptor modulating activity, in any combination.

11. (Original) The method of claim 9, wherein the system further comprises a nucleic acid encoding the ARA54, ARA55, SRC-1, ARA24, Rb, ARA70, RB, ARA24, ARA267, gelsolin, or supervillin, or variant comprising androgen receptor modulating activity.

Please cancel claim 12.

13. (Original) The method of claim 9, wherein the system further comprises three molecules wherein the molecules are ARA54, ARA55, SRC-1, ARA24, Rb, ARA70, ARA267, gelsolin, or

supervillin, or variant comprising androgen receptor modulating activity, in any combination.

Please cancel claims 14-19.

20. (Original) A method of identifying a dominant negative inhibitor of androgen receptor comprising administering a mutagen to a nucleic acid encoding an ARA interacting protein forming a nucleic acid encoding a mutated ARA interacting protein, performing a screening system, wherein the system comprises the mutated ARA interacting protein and androgen receptor, assaying the activity of the androgen receptor, and identifying those mutated ARA interacting proteins that reduce androgen receptor activity.

21. (Original) The method of claim 20, wherein the mutagen comprises hydroxylamine.

22. (Original) A composition comprising an ARA267 peptide comprising a peptide having at least 80% identity to SEQ ID NO:34, wherein the peptide enhances androgen receptor transactivation of androgen receptor.

23. (Currently amended) The composition of claim 22, wherein the mutant ARA wherein the mutant ARA further comprises an LXXLL motif, a set motif, a proline rich region, a ring finger motif, or a zinc finger motif.

Please cancel claims 24-27.

28. (Original) A composition comprising an ARA267 peptide comprising amino acids 1668-1795 of SEQ ID NO: 34, amino acids 726-730 of SEQ ID NO:34, and amino acids 1283-1287 of SEQ ID NO:34, amino acids 1324-1369 of SEQ ID NO:34 and amino acids 1884-1909 of SEQ ID NO:34.

29. (Currently amended) A nucleic acid encoding the ARA267 of claims 22-28.

Please cancel claim 30.

31. (Original) A cell comprising the nucleic acid of claim 30.

32. (Original) An animal comprising the cell of claim 30.

33. (Currently amended) A method of enhancing androgen receptor transactivation comprising administering the composition of claims 22-28.

34. (Currently amended) A method of inhibiting androgen receptor transactivation comprising administering the nucleic acid of claims 30.

35. (Currently amended) A method of identifying a molecule that modulates the activity of androgen receptor comprising administering the molecule to a system comprising androgen receptor and the composition of claims 22, assaying the activity of androgen receptor, and selecting molecules that modulate the activity of androgen receptor.

36. (Original) The method of claim 35, wherein the system further comprises ARA54, ARA55, SRC-1, SRC-1, ARA24, Rb, ARA70, RB, ARA24, ARA267, gelsolin, or supervillin, or variant comprising androgen receptor modulating activity, in any combination.

37. (Original) The method of claim 35, wherein the system further comprises a nucleic acid encoding the ARA54, ARA55, SRC-1, SRC-1, ARA24, Rb, ARA70, RB, ARA24, ARA267, gelsolin, or supervillin, or variant comprising androgen receptor modulating activity.

Please cancel claim 38.

39. (Original) The method of claim 35, wherein the system further comprises three molecules wherein the molecules are ARA54, ARA55, SRC-1, ARA24, Rb, ARA70, ARA267, gelsolin, or supervillin, or variant comprising androgen receptor modulating activity, in any combination.

Please cancel claims 40-45.

46. (Original) A composition comprising an isolated mutant of an ARA70 peptide comprising a peptide having at least 80% identity to SEQ IDNO:26, wherein the peptide prevents androgen receptor transactivation of androgen receptor.

Please cancel claims 47-49.

50. (Original) An isolated peptide comprising FXXLF, wherein the peptide interacts with androgen receptor, and wherein the peptide is not ARA54, ARA55, SRC-1, SRC-1, ARA24, Rb, ARA70, RB, ARA24, ARA267, gelsolin, and supervillin.

Please cancel claim 51.

52. (Currently amended) A nucleic acid encoding the mutant ARA of claims 46.

53. (Currently amended) The nucleic acid of claims 52, wherein the nucleic acid further comprises a promoter sequence operably linked to the sequence encoding the mutant ARA.

54. (Original) A cell comprising the nucleic acid of claim 52.

55. (Original) An animal comprising the cell of claim 54.

56. (Currently amended) A method of inhibiting androgen receptor transactivation comprising administering the composition of claims 46.

57. (Original) A method of inhibiting androgen receptor transactivation comprising administering the nucleic acid of claim 53.

58. (Original) A method of identifying a molecule that modulates the activity of androgen receptor comprising administering the molecule to a system comprising androgen receptor and the composition of claim 46, assaying the activity of androgen receptor, and selecting molecules that

modulate the activity of androgen receptor.

59. (Original) The method of claim 58, wherein the system further comprises ARA54, ARA55, SRC-1, SRC-1, ARA24, Rb, ARA70, RB, ARA24, ARA267, gelsolin, or supervillin, or variant comprising androgen receptor modulating activity, in any combination.

60. (Original) The method of claim 58, wherein the system further comprises a nucleic acid encoding the ARA54, ARA55, SRC-1, SRC-1, ARA24, Rb, ARA70, RB, ARA24, ARA267, gelsolin, or supervillin, or variant comprising androgen receptor modulating activity.

Please cancel claim 61.

62. (Original) The method of claim 58, wherein the system further comprises three molecules wherein the molecules are ARA54, ARA55, SRC-1, ARA24, Rb, ARA70, ARA267, gelsolin, or supervillin, or variant comprising androgen receptor modulating activity, in any combination.

Please cancel claims 63-68.

69. (Original) A method of inhibiting androgen receptor activity comprising, administering a molecule that blocks an interaction between the androgen receptor and gelsolin.

Please cancel claims 70-73.

74. (Original) A method of identifying an androgen receptor activity inhibiting molecule, comprising administering a molecule or set of molecules to a system, wherein the system comprises androgen receptor and gelsolin, and assaying whether the molecule reduces the interaction between androgen receptor and gelsolin.

Please cancel claims 75-76.

77. (Original) A method of identifying an mutant androgen receptor activity inhibiting molecule, comprising administering a molecule or set of molecules to a system, wherein the system comprises the mutant androgen receptor and gelsolin, and assaying whether the molecule reduces the interaction between the mutant androgen receptor and gelsolin.

Please cancel claims 78-79.

80. (Original) A method of making a composition, the method comprising synthesizing a molecule, wherein the molecule inhibits androgen receptor activity, and wherein the molecule inhibits an interaction between androgen receptor and gelsolin.

81. (Original) A system comprising ARA267 or a peptide or protein comprising FXXLF.

Please cancel claims 82-85.

86. (Original) The system of claim 81, wherein the system further comprises three of ARA54,

ARA55, SRC-1, ARA24, Rb, ARA70, ARA267, gelsolin, or supervillin, or fragment or variant thereof.

Please cancel claims 87-92.

93. (Original) A method of inhibiting androgen receptor activity comprising, administering a molecule that blocks an interaction between the androgen receptor and Supervillin.

Please cancel claims 94-95.

96. (Original) A method of inhibiting activity of a mutant androgen receptor comprising, administering a molecule that blocks an interaction between the mutant androgen receptor and supervillin.

Please cancel claims 97-98.

99. (Original) A method of identifying an androgen receptor activity inhibiting molecule, comprising administering a molecule or set of molecules to a system, wherein the system comprises androgen receptor and supervillin, and assaying whether the molecule reduces the interaction between androgen receptor and supervillin.

Please cancel claims 100-102.